

## ABSTRACT

The present invention relates to a method for the effective treatment of tissue defects and for tissue regeneration. The method includes seeding autologous cells on a support matrix and implanting the cell-seeded support matrix into a site of transplantation. The present invention also relates to various tissue repair structures that include cells seeded onto a cell-free membrane. The present invention also provides methods for cultivation, seeding, and implantation of autologous cells.